Energy Efficiency Provisions of the Federal Energy Policy Act of 2005

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ABSTRACT

The Energy Policy Act of 2005 (EPAct 2005) includes two major energy efficiency provisions: (1) manufacturer and consumer tax incentives for advanced energy-saving technologies and practices; and (2) minimum energy efficiency standards on 16 products. It also includes several provisions on demand response, smart metering, and time-based pricing for electricity, as well as a host of smaller efficiency provisions. The tax incentive provisions provide more than $2 billion for advanced energy-saving technologies and practices beginning in 2006 and generally extending for two years. The standards provision adopts standards on 16 products and directs the U.S. Department of Energy (DOE) to conduct rulemakings to revise some of these standards and to consider standards on several additional products. Program planners and implementers should consider increasing efforts to promote adoption of efficient products that will soon be subject to these DOE rulemakings, including refrigerated beverage vending machines, external power supplies, dehumidifiers, many types of commercial refrigeration systems, and ice makers.

INTRODUCTION

EPAct 2005 contains 18 titles dealing with such subjects as energy efficiency, demand response, advanced metering, electricity pricing, renewable energy, oil and gas, coal, nuclear power, vehicles and fuel, hydrogen, research and development, electricity, tax incentives, ethanol, and motor fuels (U.S. Congress 2005). This paper briefly reviews some of the most significant energy efficiency provisions and discusses their implications for energy efficiency program planners and implementers. The new law contains two significant energy efficiency provisions that deserve particular attention. First, it contains tax incentives for several types of advanced energy-saving technologies and practices. Second, it sets new minimum-efficiency standards on several products and directs DOE to set standards on several other products. These two provisions will save a substantial amount of energy—and will save even more energy if complementary regional, state, and local programs are offered. In the following sections, we discuss these two major provisions and their implications for program planners and implementers. We then briefly discuss several other provisions that energy services professionals may find useful.

Tax Incentives

The new law includes substantial energy efficiency tax incentives. According to Congress' Joint Tax Committee, the bill provides more than $2 billion for energy efficiency tax credits (including efficient vehicles), primarily in 2006 and 2007 (JCT 2005). The subsections below describe these energy efficiency provisions in the new law.[1]

[1] The law also includes several renewable energy tax incentives, which we do not discuss here as they are beyond

New Homes

The new legislation includes a credit of $2,000 for builders who build homes that use 50 percent less energy for space heating and cooling than homes built according to the 2003 International Energy Conservation Code (IECC), including supplements in effect as of the date when the bill was enacted. In addition, there is a $1,000 manufacturer tax credit for manufactured homes that either use 30 percent less energy than this reference code or that meet the then-current ENERGY STAR® criteria for manufactured homes. These tax credits cover homes acquired between January 1, 2006 and December 31, 2007. Details on how new homes will be certified need to be set by the Secretary of the Treasury in consultation with DOE.

Many residential new construction programs are now based on the ENERGY STAR New Homes program. The U.S. Environmental Protection Agency (EPA) has revised these criteria, such that they become 15 percent savings in the Southern states and 20 percent in the Northern states, based on *whole house* energy savings (e.g., appliances and lighting are now included) relative to an updated and expanded baseline (ENERGY STAR 2005a). For virtually all new homes, the tax credit criteria are significantly more stringent than either the old or new ENERGY STAR criteria. In addition, the tax credit and ENERGY STAR differ in that the tax credits are based on only energy used for space heating and cooling while ENERGY STAR also includes water heating energy use (and in the new ENERGY STAR criteria, lighting and appliances as well).

For manufactured homes, the savings target is significantly lower, particularly in 2006 during which the current ENERGY STAR specification can still be used. EPA is now considering changes to the ENERGY STAR specification for manufactured homes and may tighten the criteria some. Originally, EPA proposed no changes to the manufactured home specification but some tightening is likely. For a discussion of many of the issues involved, see RESNET (2005). EPA plans that the new criteria will apply to homes permitted after July 1, 2006, or completed after January 1, 2007. Given these factors, the market share for new ENERGY STAR manufactured homes is likely to be substantial, particularly in the South.[2]

For site-built homes, program administrators should consider promoting both ENERGY STAR and the 50 percent savings target using a "good" (ENERGY STAR) versus "best" (50 percent savings) approach. Modest incentives may be useful for homes just meeting ENERGY STAR, while the 50 percent target will require technical assistance and additional incentives. For manufactured homes, local promotion and technical assistance will be useful as well, although given the more modest qualifying criteria for the manufactured home tax incentives, no further incentives are likely to be needed beyond the $1,000 tax credit.

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our scope.

[2] The proposed ENERGY STAR criteria do little to address window heat gain in the South and also include weak air conditioning efficiency criteria for the baseline home. This latter issue is likely to be addressed in the final criteria.

New Commercial Buildings and Major Upgrades to Existing Buildings

The new law provides a tax deduction of up to $1.80 per square foot for new commercial buildings that reduce regulated energy use by 50 percent relative to the requirements in the 2001 new construction standard developed by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE 90.1). The law also allows owners of new and existing buildings (those placed in service prior to the date of enactment) to earn a partial deduction of $0.60 per square foot per system for upgrading one or two major building systems (envelope, lighting, or HVAC) to 50 percent more efficient than ASHRAE 90.1 standards, instead of all three. Detailed implementing regulations were developed by the Treasury Department, with input from DOE. These deductions apply to new buildings placed in service between the date of enactment and December 31, 2007 or retrofits to existing buildings during the same period.

The savings threshold to earn a tax credit is about twice the level of savings being targeted by most commercial new construction programs. Thus program operators are likely to continue their current programs but should also consider promoting and providing technical assistance for the higher savings incentivized under the tax credits. The New Buildings Institute has published a new commercial buildings guideline that provides technical guidance on ways to meet the 50 percent savings threshold and has prepared handbooks for building owners and designers on use of this guideline (NBI 2005).

The lighting section includes additional provisions. While long-term rules will be developed by the Secretary of the Treasury, the law establishes interim rules allowing a deduction of $0.30 per square foot for buildings (or portions of buildings) that achieve at least 25 percent lighting savings relative to the ASHRAE 90.1-2001 lighting power density (Watts per square foot) requirements, *and* that also use bi-level switching. This credit increases proportionally to $0.60 per square foot for using bi-level switching and achieving 40 percent lighting savings.[3] This provision may drive major changeouts in existing buildings lighting systems. Local lighting programs should promote this incentive in their marketing efforts, although the federal deduction is probably not a replacement for local lighting incentives.

Appliances

The new legislation provides credits *to the manufacturer* for very efficient refrigerators, clothes washers, and dishwashers. Unless otherwise noted below, the incentives are for products sold in 2006 and 2007, relative to sales by each manufacturer in the previous three years (i.e., if a manufacturer sold an average of 50,000 eligible clothes washers in the preceding three years, then only sales beyond 50,000 earn an incentive). For refrigerators, there are three efficiency tiers—a $75 credit for each refrigerator that uses 15–19.9 percent less energy than a unit just meeting the 2001 federal minimum-efficiency standard (15 percent savings is the current ENERGY STAR level), a $125 credit for units saving 20–24.9 percent, and a $175 credit for units saving 25 percent or more.[4] For clothes washers there is only one efficiency tier—a $100

[3] The rationale was that bi-level switching and excluding the additional lighting power allowances save substantial energy and thus on average bring spaces in line with the 50 percent savings goal.

[4] For refrigerators, there are two additional quirks. First, the 15 percent incentive only applies for units sold in 2006. Second, baseline sales are multiplied by 110 percent before determining the number of units that earn an incentive

credit for units meeting the 2007 ENERGY STAR level. For dishwashers, there is also one efficiency tier based on the 2007 ENERGY STAR level. However, DOE has not yet proposed a specific new ENERGY STAR level and therefore Congress decided to make the amount of the tax incentive depend on the level DOE finally sets. Under the new law, the dishwasher credit will be $3 for each percentage point of energy savings relative to the current ENERGY STAR spec. There is also a total cap per manufacturer of $75 million, a figure some of the larger manufacturers may reach but the smaller manufacturers will not.

These credits may induce manufacturers to reduce the prices of complying refrigerators, clothes washers, and dishwashers. Energy efficiency programs can help promote products that meet these levels. This includes refrigerators that exceed the ENERGY STAR level. Due to the federal tax credits, additional financial incentives for qualifying appliances are unlikely to be needed for 2006 and 2007. However, local programs should promote eligible products to consumers, such as by working with retailers and through marketing campaigns, just as many programs now promote ENERGY STAR. On the other hand, we don't recommend incentives after 2008 for ENERGY STAR clothes washers and dishwashers and for refrigerators that save 20 percent, since by 2008, we expect these products to have substantial market share.

Air Conditioners, Heat Pumps, Furnaces and Water Heaters

The bill provides tax credits for very efficient new central air conditioners, heat pumps, furnaces, and water heaters used in non-business applications. The credits apply to equipment placed in service in 2006 and 2007. Specific eligibility levels and amounts are summarized in Table 1.

Table 1. Summary of HVAC Tax Credits

Equipment Type	Qualifying Efficiency	Credit Amount
Central air conditioners	15 SEER and 12.5 or 13 EER*	$300/unit
Central air-source heat pumps	15 SEER, 9 HSPF, and 13 EER*	$300
Ground-source heat pumps Closed loop Open loop Direct expansion (DX)	All systems must provide water heating 14.1 EER and 3.3 COP** 16.2 EER and 3.6 COP** 15.0 EER and 3.5 COP**	 $300 $300 $300
Gas, oil, or propane furnace or boiler	95% AFUE	$150
Furnace blower	Electricity use <2% of total furnace site energy use***	$50
Electric heat pump water heater	2.0 EF	$300
Natural gas, propane, or oil water heater	0.80 EF	$300

* For central AC, the bill refers to the highest efficiency tier of the Consortium for Energy Efficiency (CEE), in effect as of Jan. 1, 2006. CEE is now discussing this tier. The SEER level is likely to be 15, and CEE is debating between EER 12.5 and 13. In the case of heat pumps, the legislation specifies SEER 15, HSPF 9, and EER 13. However, this may be modified in a "technical corrections" bill to parallel the AC provision and refer to the highest CEE specification.

(e.g., 50,000 in the example above becomes 55,000).

** These are the same as the ENERGY STAR specification.
*** This is the CEE/GAMA specification (see "Air Handling [Electric Use] Performance Level" at www.cee1.org/gas/gs-ht/gas_heat_specs.pdf).
Note: There is a $500 lifetime cap per taxpayer for the HVAC and existing home credits combined. "Lifetime" means in 2006 *plus* subsequent years.

These specifications only include very high efficiency equipment with very low market shares.[5] This equipment is generally not widely promoted. In addition, in the case of boilers and oil-fired furnaces, there are just a few qualifying units on the market and this equipment can be hard to find. Local programs should promote these efficiency levels and the availability of federal tax credits, particularly for gas furnaces where eligible equipment is available from many manufacturers. Furthermore, the credit amounts will generally cover no more than half of the incremental cost of qualifying equipment, so additional local incentives may be useful.

Envelope Improvements to Existing Homes

The new bill provides a 10 percent tax credit up to $500 for upgrading building envelope components to be in compliance with model codes for new homes (however, for replacement windows, the cap is $200). This $500 limit applies to 2006 plus subsequent tax years (e.g., if $400 is used in 2006, only $100 is available for subsequent years). HVAC incentives (discussed in the section above) also count against the $500 cap. The details of the provision are oriented towards new windows, insulation upgrades, and ENERGY STAR metal roofs. Duct sealing and infiltration reduction measures are eligible as insulation measures, but only material costs are eligible; these are labor intensive measures, so this interpretation may limit the applicability of these incentives. These credits apply to upgrades installed between January 1, 2006 and December 31, 2007.

This credit can also be useful for promoting comprehensive retrofits (along the lines of these promoted under several existing Home Performance with ENERGY STAR programs—see Thorne 2003). Other program operators should consider offering Home Performance with ENERGY STAR programs to encourage and assist homeowners to install comprehensive packages of efficiency measures. Again, some supplemental local incentives may be useful since the federal credit is only 10 percent. For local incentives, we recommend that incentives be based on energy savings achieved, not project cost, so as to reward home owners who maximize savings. Technical assistance is particularly important for existing homes, as few homeowners know how to identify the most cost-effective package of measures.

Stationary Fuel Cells and Microturbines

The new law includes several provisions related to fuel cells. First, the bill provides a 30 percent business or individual tax credit for stationary fuel cell power plants up to $1,000/kW (stated as $500 per 500 watts). As current system costs are roughly $5,000/kW or more, the credit will generally be at the $1,000/kW ceiling. For business applications, the fuel cell system must be 500 kW or greater and have an efficiency of 30 percent or more (details on how to determine

[5] There are two qualifications to this statement. First, many ground-source heat pumps meet these specifications (although ground-source systems only account for a small fraction of heat pump sales). Second, many (but far from all) furnaces with 92 percent AFUE or more will meet the furnace blower specification.

efficiency will be provided in regulations). For residential applications, the 500 kW and 30 percent efficiency floors do not apply. Both of these credits apply to systems placed in service during 2006 and 2007.

Second, the electricity title of the bill includes the possibility of production tax credits under the Advanced Power System Technology Incentive Program (Section 1224). This section provides for production tax credits of 1.8 cents/kWh (or 2.5 cents/kWh for systems certified for certain homeland security purposes) for an "advanced fuel cell, turbine or hybrid power system or power storage system to generate or store electric energy." However, this section is subject to annual appropriations from Congress, an uncertain proposition. The law authorizes $10 million annually for this provision, so even if funded, the production tax credit program will be fairly small.

In the case of microturbines, the law provides for a 10 percent investment tax credit for "stationary microturbine power plants." The credit is capped at $200/kW and only applies to systems with a capacity of less than 2,000 kW that have an efficiency of at least 26 percent (measured at ISO conditions). As with the other credits, the microturbine provision applies to systems placed in service during 2006 and 2007.

APPLIANCE AND EQUIPMENT EFFICIENCY STANDARDS

The legislation includes provisions setting new federal minimum-efficiency standards on 16 specific products and directing DOE to set standards on several other products. Table 2 summarizes the standards set in the legislation. Table 3 summarizes the DOE rulemakings called for under the bill.

Table 2. Standards Set in the Energy Policy Act of 2005

Product	Effective Date*	Standard
Residential		
Ceiling fan light kits	2007	Packaged with ENERGY STAR v2 screw-in CFLs or meet ENERGY STAR Residential Light Fixture v4 specification. Standard for specialized products determined by DOE by 1/1/07.
Dehumidifiers	Oct. 2007	ENERGY STAR v1 specification
Compact fluorescent lamps	2006	ENERGY STAR v2 specification
Torchiere lighting fixtures	2006	190 W maximum
Commercial		
Air-conditioners and heat pumps (unitary equipment 240–760k Btu/hr)	2010	Capacity Minimum EER (AC/HP) 65–134k Btuh 11.2/11.0 135–239 11.0/10.6 240–759 10.0/9.5 (EER 0.2 lower for units with integrated heating that is not electric resistance) For HP, also 3.2 COP@47◦F except 3.3 for 65–

		134k Btuh equipment.
Clothes washers	2007	MEF at least 1.26 and WF no more than 9.5
Distribution transformers (low voltage)	2007	Meet NEMA standard TP-1-2002
Exit signs	2006	ENERGY STAR v2 specification
Fluorescent lamp ballasts (F34 and F96ES types)	2009	Closes loophole in DOE regulations so that these ballasts will be electronic, like other covered ballasts
Ice-makers (cube type, 50-2,500 lbs/day)	2010	California Energy Commission (CEC) standard, which is almost identical to Consortium for Energy Efficiency (CEE) Tier 1.
Mercury vapor lamp ballasts	2008	Bans sale of mercury vapor lamp ballasts
Pedestrian signals	2006	ENERGY STAR v.1.1 specification
Pre-rinse spray valves	2006	Maximum 1.6 gallon/minute
Refrigerators and freezers (packaged)	2010	California Energy Commission (CEC) standard, which is almost identical to ENERGY STAR specification
Traffic signals	2006	ENERGY STAR v1.1 specification
Unit heaters	Aug. 2008	Must be equipped with an intermittent ignition device and have power venting or an automatic flue damper

* Effective in January unless otherwise specified.

Table 3. Standards to Be Set by DOE Rulemaking

Product	Rulemaking Completion Date
Ceiling fan light kits (niche products—candelabra base, halogen, etc.)	Jan. 1, 2007
Battery chargers	Aug. 8, 2008
External power supplies	Aug. 8, 2008
Commercial refrigeration—ice-cream freezers, packaged units without doors, remote-condensing equipment	Jan. 1, 2009
Refrigerated beverage vending machines	Aug. 8, 2009
Dehumidifiers (revised standard)	Oct. 1, 2009
Commercial clothes washers (revised standards)	Jan. 1, 2010 and Jan. 1, 2015
Commercial packaged refrigerators & freezers (revised standards)	Jan. 1, 2013 and 3 years after revised standard takes effect
Ice-makers (revised standards)	Jan. 1, 2015 and 5 years after revised standard takes effect

In addition, the bill allows DOE to consider and set standards on fans used in residential furnaces to distribute heated or cooled air throughout a house. DOE has been investigating such a standard but questioned whether it had the legal authority for this. This provision ends this uncertainty. A rulemaking on furnace efficiency standards is now underway, and so it is likely

that furnace fans will now be considered as part of this rulemaking. In a similar manner, the law authorizes but does not require DOE to set air movement standards for ceiling fans (the law regulates ceiling fan *light kits* but leaves air movement efficiency standards to DOE's discretion).

These provisions have several implications for energy efficiency programs. For the products for which standards are set, financial incentive programs can be scaled back in anticipation of the federal standards that will take effect, sometimes as early as 2006. Even when standards do not take effect for several years, manufacturers will be gradually ramping up production of qualifying products, achieving some energy savings even before the standards take effect. Also, for quite of few of these products, under the law (see Table 2), the current ENERGY STAR specification is mandated, which means that EPA and DOE will need to update the ENERGY STAR specification in order to differentiate the best products in the market from those that just meet the new federal minimum efficiency standard.

OTHER EFFICIENCY PROVISIONS

In addition to the tax incentives and standards provisions, the new energy bill included a variety of other smaller efficiency provisions as follows.

- *Smart metering, time-based pricing, and demand response.* The bill contains a number of requirements in this area. Within 18 months of passage, states and utilities are to create customer offerings for time-based pricing; the enforcement aspect of this provision, however, is weak. The provision also calls on states to pursue smart metering deployment, and calls on DOE and FERC to issue reports on demand response and related metering and pricing issues. Other forms of state and federal encouragement for these technologies and policies are also included.
- *Industrial voluntary commitments:* Encourages DOE to enter into agreements with large industrial firms and/or their trade associations to achieve improvements in energy intensity (energy use per unit of product produced) of at least 2.5 percent per year (in excess of recent trends). DOE will provide technical assistance, assuming Congress appropriates the necessary funds. This program could be a useful complement to industrial energy management programs that several regions are now piloting (e.g., see NEEA 2002).
- *Appliance labeling:* Directs the Federal Trade Commission (FTC) to review the effectiveness of its current Energy Guide label and to make appropriate revisions. This provision will likely lead to improvements in the current labeling program and will make the program more effective in achieving its goals of informing consumers and providing energy savings. These improvements will likely also better tie ENERGY STAR into the Energy Guide label and provide other enhancements that will make the label more useful for promoting efficient appliances. Specific recommendations for the new label have been prepared by ACEEE (Thorne and Egan 2002) and are likely to receive extensive discussion during the FTC proceeding.
- *ENERGY STAR:* Authorizes the ENERGY STAR program and makes clear Congress' support for it. Currently, the program is proceeding under broad authority granted to

DOE and EPA to save energy and reduce pollution. This new legislative provision is general enough that it will not have much direct impact on the program, other than calling for notification and comment on key ENERGY STAR program changes, but this provision could contribute to increased appropriations for the program. One specific item in the legislation is a directive to generally provide nine months lead time to manufacturers between when a new or major revision to an ENERGY STAR specification is published and when it takes effect. Federal agencies, however, retain the right to waive this requirement.

- *Consumer education on HVAC maintenance:* Directs DOE to conduct an education program on the benefits of proper air conditioning, heating, and ventilation maintenance. It is unclear whether DOE will have much funding for this program, but if the program is funded it could be a useful complement to local programs that promote improved HVAC installation and maintenance practices.
- *Appliance rebates:* Establishes a program to provide federal matching funds for state energy office-run ENERGY STAR appliance rebate programs and authorizes up to $50 million annually for five years. However, the funds are dependent on annual appropriations. Given the tight federal budget, it is questionable if funds will be available to implement this provision.
- *Federal energy efficiency:* Establishes updated targets for energy used in federal buildings and also addresses equipment procurement and performance contracting, providing additional tools to help federal facilities to achieve these targets. It reauthorizes DOE's Energy Service Performance Contracting (ESPC) program for ten years. This is a key step in sustaining the private funding for federal efficiency projects. The bill also sets updated performance standards for new federal buildings and asks DOE to consider even more stringent performance levels.
- *Efficient public buildings:* Creates a grants program for energy-efficient public buildings, including both new and renovated buildings. The bill authorizes $30 million annually, but as with the appliance rebate program, how much gets accomplished will depend on funding.
- *Housing:* Includes a housing provision that creates a public housing energy office at U.S. Housing and Urban Development. Allows longer terms for performance contracts to enable more comprehensive improvements to public housing through energy service companies. Requires public housing to purchase ENERGY STAR equipment, public housing agencies to integrate capital planning and utility management, and new public housing construction to meet recent energy codes.
- *Combined heat and power (CHP):* Directs states to consider adopting model interconnection standards. Provides for a study by DOE on the potential benefits of distributed generation and methods for valuing these benefits. To the extent states improve their interconnection standards and correctly value the benefits of distributed generation, CHP and other distributed generation will increase.
- *Public awareness campaign:* Authorizes a major campaign by DOE on how to save energy and the benefits of doing so. A federal campaign, however, will be dependent on appropriations from Congress.
- *Energy efficiency resource standards:* Energy efficiency resource standards are energy savings targets that electric and/or gas utilities must meet. Such programs have already been established in several states (e.g., Texas, Connecticut, and Nevada). The federal

legislation authorizes a pilot program with additional states and calls for a study by DOE on this topic. The pilot programs are dependent on Congress appropriating funds.

- *Building energy codes:* Prior law established a technical assistance program to states on building code adoption. This provision adds to prior law by calling for increased funding and adding a component on code implementation. Like many other provisions, this provision is dependent on Congress appropriating funds in the future.
- *Daylight savings time:* The new law extends daylight savings time by one month (three weeks in the spring, one week in the fall). This provision should modestly reduce evening electricity use.

ESTIMATED ENERGY SAVINGS

Overall, ACEEE estimates that the energy efficiency sections of the new law will reduce U.S. energy use in 2020 by about 2.5 quadrillion Btu (quads), which is about 2 percent of projected U.S. energy use in that year. In 2010, savings are only about 0.7 quads, which is about 0.6 percent of projected U.S. energy use in that year. Savings are much lower in 2010 since savings from many provisions mount over time as existing equipment is replaced with more efficient equipment. Of the 2020 savings, 40 percent are due to new standards, 20 percent to tax incentives, and 40 percent to various other provisions. Included in the 2020 savings are natural gas savings of about 1.4 trillion cubic feet and peak electric savings of about 63,000 MW, energy bill reductions of more than $20 billion, and about 15 million metric tons of carbon reductions (carbon, in the form of carbon dioxide, is a major contributor to global warming).

CONCLUSIONS AND RECOMMENDATIONS

The tax credit provision will likely provide on the order of $2 billion for advanced energy-saving technologies and practices, primarily over the 2006–2007 period. By way of comparison, utility and public benefit program energy efficiency spending have totaled approximately $1.3 billion annually in recent years (York and Kushler 2005), so these new tax credits could have the effect of increasing public spending on efficiency programs by roughly 70 percent. Utilities and other agencies implementing electricity-, gas-, and oil-saving programs should develop programs to complement these new tax credits, including enhanced programs to promote efficient new homes; existing homes; new and existing commercial buildings; heating, air conditioning, and water heating equipment; and appliances. In order to aid these regional efforts, national organizations should develop materials at the national level on the new tax credits, such as a Web site and appropriate written material. Local program operators can then use and reference this national material, allowing them to concentrate their resources on local promotion and not on general material development.

The standards provision adopts standards on 16 products and directs DOE to conduct rulemakings to consider standards on several additional products. Program planners and implementers should consider increasing efforts to promote adoption of efficient products that will soon be subject to these DOE rulemakings, including refrigerated vending machines, external power supplies, commercial refrigeration systems, dehumidifiers, and ice makers. By helping to better establish these advanced products in the market, program operators can increase the chances that DOE will adopt standards that achieve substantial savings.

Overall, ACEEE estimates that the tax credit, standards, and other efficiency provisions in the energy bill will reduce peak electric generating needs in 2020 by about 63,000 MW and reduce natural gas use by about 1.3 trillion cubic feet in that year. However, to achieve these savings, DOE will have to set reasonable new efficiency standards, and tax credits will need to be complemented with adequate promotion and technical assistance. Regional, state, and local energy efficiency programs can provide many of these services, thereby helping to make the new federal law as effective as possible while also increasing the effectiveness of existing energy efficiency programs.

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